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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,434	07/02/2003	Xuming Zhang	01CON225P-CON2	7713

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EXAMINER

ZISKIND, ANNA Y

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

3/1

Office Action Summary	Application No.	Applicant(s)	
	10/614,434	ZHANG ET AL.	
	Examiner	Art Unit	
	Anna Ziskind	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/2/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 7/2/03 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Therefore, the foreign patent documents and non-patent literature publications listed were not considered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 20, 21, 34, and 35 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6614839. Although the conflicting claims are not identical, they are not patentably distinct from each other because the step of receiving a plurality of codewords in the conflicting patent corresponds to the step of receiving a digital impairment learning signal in the instant application. Because the digital impairment learning signal is not further defined in the claims, it is interpreted as simply a received signal, just as the received plurality of codewords in the conflicting patent. Next, the steps of selecting a first codeword, obtaining a first transmission level, selecting a second codeword, and obtaining a second transmission level in the conflicting patent correspond to the steps of obtaining a plurality of transmission levels, selecting a first transmission level, and selecting a second transmission level in the instant application. Finally, the steps of scaling said first transmission level and determining said encoding type in the conflicting patent correspond to the steps of performing an analysis, including scaling said first transmission level and comparing said first scaled level, as claimed in claim 21, and determining said encoding type in the instant application.

Claims 22, 23, 36, and 37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6614839. Although the conflicting claims are not identical, they are

not patentably distinct from each other because multiplying said first transmission level by a scale value, as claimed in claim 22 of the instant application, corresponds to the step of multiplying said first transmission level, as claimed in claim 2 of the conflicting patent. Further, the multiplication of the first transmission level by two to the power of M , which is the difference between the first and second indices, as claimed in claim 23 of the instant application, corresponds to the steps of subtracting said first index and multiplying said first transmission value, as claimed in claim 2 of the conflicting patent.

Claims 24-26 and 38-40 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3-5, respectively, of U.S. Patent No. 6614839. Although the conflicting claims are not identical, they are not patentably distinct from each other because they correspond word for word to the claims of the conflicting patent and because their parent claims are not patentably distinct from those in the conflicting application for the reasons discussed above.

Claims 27 and 28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 6614839. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed receiver in the instant application corresponds to the receiver in the conflicting patent. As with the rejection of claim 20, the digital impairment learning signal in the instant

application is not functionally distinct from the codeword in the conflicting patent. The processor and its functions, as outlined in claims 27 and 28 of the instant application correspond to the processor claimed in the conflicting patent.

Claims 29 and 30 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 14 of U.S. Patent No. 6614839. Although the conflicting claims are not identical, they are not patentably distinct from each other because multiplying said first transmission level by a scale value, as claimed in claim 29 of the instant application, corresponds to multiplying said first transmission level, as claimed in claim 14 of the conflicting patent. Further, the multiplication of the first transmission level by two to the power of M , which is the difference between the first and second indices, as claimed in claim 30 of the instant application, corresponds subtracting said first index and multiplying said first transmission value, as claimed in claim 14 of the conflicting patent.

Claims 31-33 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 15-17, respectively, of U.S. Patent No. 6614839. Although the conflicting claims are not identical, they are not patentably distinct from each other because they correspond word for word to the claims of the conflicting patent and because their parent claims

are not patentably distinct from those in the conflicting application for the reasons discussed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Ziskind whose telephone number is (571) 272-2769. The examiner can normally be reached on Mon. - Fri., 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Anna Ziskind
Examiner
Art Unit 2611

AZ

Chieh M. Fan

CHIEH M. FAN
SUPERVISORY PATENT EXAMINER